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THE TREATMENT OF COMPOUND FRACTURE OF LONG BONES.*

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There are at least two reasons why I should ask your pardon for presenting an essay on the treatment of coupound fractures; first it is such a common-place and thread-worn subject, and secondly, I must confess I have nothing new to offer in this paper. But notwithstanding this, it is a subject which must always be a live and interesting one, especially to surgeons who have the care of those who work for railroads, mining or manufacturing corporations; and if I shall so present it as to elicit a liberal discussion, our time in doing so will not have been spent in vain.

As most of these fractures we get are both comminuted and complicated, no strict classification will be attempted, but all will be included under the general term of compound fractures.

The first aid to the injured is of the greatest importance to him, and will frequently determine the question as to whether or not the limb can be saved; more or less of this aid is generally furnished by the laiety who know nothing whatever about surgical cleanliness, and the wound is nearly always infected before the arrival of the surgeon. We should, therefore, teach them that they should not touch external

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wounds with their hands, nor should they apply anything to them whatever, unless it be clean water or spirits of turpentine—both of which they can nearly always get. Such patients are generally seen by us for the first time either in the shops, or along the road-side, in very unclean conditions, and usually suffering great pain and shock, which demand our immediate attention, and which are usually increased by the mental impression received in the accident. Morphine and strychnine hypodermically should be given as soon as possible in large doses to relieve this condition; laymen generally administer alcoholic stimulants, which frequently do more harm than good.

The wound should now be quickly and carefully inspected and profuse hemorrhage stopped with gauze packing, if possible, and if not by a tourniquet, which should be removed as soon as the hemorrhage is stopped. It must be dressed temporarily and quickly with aseptic gauze, so as to prevent further infection, but no attempt should be made to reduce the fracture any further than is necessary to prepare the patient for transportation to a hospital. This should be done in the most careful manner so as not to cause the fragments of bone to do further injury to the tissues; projecting bones are always necessarily infected, and should not be pulled back into the wound until cleansed for fear of contaminating it; then too, such projecting bones frequently press on lacerated blood vessels and prevent hemorrhage which might follow, and even prove fatal, should reduction be attempted when you are not prepared to stop profuse bleeding. On this important point I quote the following from Dr. W. L. Estes of South Bethlehem, Pa., a railroad surgeon of wide experience: "I cannot too strongly deprecate any attempt at reduction of a compound-comminuted or compound-complicated fracture, at the time one usually renders first aid. That is, along the roadside, in the dust and dirt of a factory, or in the wet smear of a mine. I have seen so many disastrous effects from the soiling and infection thus produced, that I would most strenuously urge simply cutting away the clothing, interposing some clean cloths, even a clean board, straw or hay next the skin, and by improvised splints thoroughly immobilized the limb without in any way disturbing the axis of the displacement. Such a case ought to be transported to a hospital or to a house, where proper surgical care and final operation and dressing may be done as soon as possible."

Upon the arrival of the patient at his destination, the wound should be very carefully cleaned and examined preparatory to the first dressing; and the special indication here is that same cardinal principle, which is at the foundation of all good surgical work, and that is

asepsis. That same care should be taken by the surgeon to thoroughly cleanse and disinfect his hands, his instruments, and the field of operation that he would take in preparing for a laparotomy. Such principles are too well known to require detailing here, except to state that in order to do this work, as it should be done, it is absolutely necessary to anaesthetise the patient; but before doing this the surgeon should always procure his permission in the presence of witnesses, to do whatever he thinks best after examining the wound, especially if the question of amputating a limb is to be seriously considered at this time. Just how to decide this question is not always easy, and we must be guided by the conditions found in each case.

Surgeons a generation ago advised that "in all cases of serious injury or tearing of a principal vessel or nerve or great destruction of soft tissues, amputation is necessary." After following the footsteps of the great Lister, the father of asepic surgery, experience has taught us that such advice is dangerous, and cannot be too strongly condemned.

If there is any chance whatever of preserving a useful limb, especially if it be the upper extremity, we should do all in our power to save every part of it, even if it be a single finger. On account of a crushed and burnt wound in a laundry mangle three years ago, I disarticulated a negro girl's hand through the carpo-metacarpal joint, leaving only the thumb, which she finds quite useful. Any portion of the upper extremity, though apparently useless, should be preserved. On the contrary, when there is to be a long period of disability, and a lower extremity saved, which will be almost or quite useless, we should adopt the opposite course, and amputate at a time when it can be done at the lowest point, and when the chances for primary union are best.

We should look closely after the condition of the circulation in the injured member; if the fingers or toes are cold and cannot be warmed by stimulants and external heat, and if the pinkish color does not return to them after pressure by the fingers, especially after severe hemorrhage, there is probably an injury to the brachial or femoral or their larger branches, and the limb will rarely receive a sufficient blood supply from the interosseous arteries; conservatism in such cases is worse than useless.

Where there is considerable comminution of bone the question of what to do becomes a perplexing one; numerous cases are on record where limbs have been saved with a loss of as much as two inches of bone in this way. This can be done only where the remaining periosteum is healthy and well nourished, and where the fragments

can be kept in good position. If such comminution occur in one or both bones of the fore arm or leg, (especially if in the tibia) the other bone should have a corresponding section removed from it so as to bring all the ends in apposition at the same time.

The proximity of the fracture to a large joint or even its extension into the joint, does not materially affect the question of amputation, but may always cause ankylosis of that joint. Extensive laceration of muscles and skin also form an important factor in determining whether or not to amputate; the same author quoted above says: "I cannot recall ever to have saved a limb with a compound-comminuted fracture where as much as one-half of the skin of the periphery at the seat of the fracture was destroyed. In a number of cases I have been successful when half of the muscular tissue at the seat of the fracture has been destroyed. It is of the greatest importance, therefore, to the salvation of the limb whether the injury to the soft tissues has been produced by direct or indirect violence. Very rarely will a limb be saved when the compound-comminuted fracture has been produced by violence which has acted directly on the skin—pressure of a car wheel for instance, or heavy pieces of metal or stone falling upon the member. Very frequently it will be saved when the lacerations have been produced by the excursions of the fractured ends of the bones, such as result from falls, etc.

When both skin and muscles at the seat of fracture are extensively destroyed, conservatism as a rule is useless."

The common surgical dictum, "when in doubt operate," so extensively advocated especially by abdominal surgeons, has no place in the treatment of compound fractures, if by operate we mean to amputate, but rather the reverse rule should be followed: "Amputation as a dernier resort."

In attempting to save the limb, two cardinal points should be always borne in mind; the first of these, I have already mentioned, is asepsis, and the second and by no means the least is thorough drainage. These two fundamental principles of surgery are especially applicable and indispensable to the treatment of the class of injuries under consideration.

The seat of fracture and the wound should be thoroughly cleansed after which it is carefully explored with the aseptic finger and by sight, the external wound being enlarged if necessary. We should cut away with knife and scissors all torn and lacerated tissues which are thoroughly infected and which if left would probably slough away. Ample provision should be made for drainage, especially where contusions and lacerations have been quite extensive; and in making

our incisions for this purpose, we should make them quite large and numerous, making through and through incisions so as to drain from the seat of fracture downward to the most dependent part of the injured limb. This can usually be done by cutting only through the skin, making the remainder of the opening by separating the muscles without cutting them; by this means we can nearly always avoid a troublesome hemorrhage.

The wound is now enlarged and thoroughly explored, and there is generally little or no trouble in removing small comminuted fragments of bone; larger ones, which are still held in good position and well covered with periosteum, need not be removed. Should there be a comminution of not more than four or five centimeters of the tibia or one of the bones of the forearm it is best to resect a similar portion of the parallel bone; but where the bones are so much shortened as to render the limb practically useless, or where the angulation of the blood vessels would most probably so obstruct the circulation as to give rise to gangrene, amputation should be resorted to, rather than resection. Great care should be taken to always ligate any bleeding vessels and suture tendons and large nerves. A very important and absolutely necessary part of the treatment is to get the ends of the bones in perfect coaptation and to provide some means of retaining them in position. This can generally be done by means of splints—expecially where there has not been much loss of bone. Various mechanical means have been devised for holding the fragments in place, but the ones in most common use are wiring the ends of the bones together, or holding them in apposition by means of metal plates fastened across the line of fracture by means of screws, nail or ivory pegs. Such foreign bodies should be removed at a later operation after they have served their purpose.

For drainage I generally use both iodoform gauzed and fenestrated rubber tubes, both extending through and through. The limb is now put into whatever splint seems best fitted for the double purpose of holding the ends of the bones in good coaptation and allowing the wound to be dressed with the greatest ease and comfort to the patient; there are numerous metallic splints made for this purpose, and nearly all of them are made for the "average man," but the "average man" does not live, therefore such splints never fit any one, so I nearly always use plaster of paris over the wounds, which are nicely dressed and covered with oiled silk, and I immediately cut fenestra over them. Great care should be taken to have an assistant hold the limb in proper position while the plaster is being applied; dressings on the wound should be applied longitudinally and not around the limb, and

the oiled silk cut and reflected over the cut edges of the plaster so as to protect it in future dressing. If necessary the plaster may be reinforced with strips of wood or metal to strengthen the cast, which should extend over the nearest joints, to aid fixation of the fragments.

For the leg, a fracture box in which is placed a large flat sand bag so arranged as to fit the posterior contour of the calf and heel makes a good splint. Where there is a fracture of the femur, simple or compound, I always use a modification of the Hodgen splint. The leg is shaved on both sides up to the knee and a two inch strip of adhesive plaster so applied that eight inches extends above the knee and eighteen inches below the ankle; bandages of starched gauze are now applied, wet from the toes to the knee, and the upper ends of the adhesive strips reflected downward and covered by the second bandage; the lower ends of the adhesive strips are turned back so that the sticky surfaces are in contact; the leg is now put in the Hodgen splint, with the foot of the bed raised and the limb swinging clear of the bed and the cords adjusted at such an angle as to get just the amount of traction desired.

The adhesive strips extending below the ankle are to be so adjusted to the distal ends of the wire splints as to make it fit the limb and also to prevent it slipping from under the leg. This apparatus allows the greatest freedom in dressing the wound, and also in handling the patient in bed. The first dressing of a compound fracture need not generally be disturbed for three or four days, and then the tubes should be washed out and the wound thoroughly irrigated with a 1-3000 bichloride solution; the gauze in the wound should be pulled on very gently, but not removed where it causes pain; it may be left in for a week or ten days, thereby leaving a more patent opening for drainage when it is removed. The frequency of the dressing, the shortening of the tubes and the general care of the wound should be governed by its apperance and the condition of the patient; as a rule, the dressing, after the first one, should be done daily.

Well does the Internatioanl Text-Book of Surgery say: "Among the greatest triumphs of modern surgery is the saving of limbs which are the seat of a compound fracture."

I quote from the same excellent work the following: "In no case is it recommended to seal the wound of a compound fracture hermetically." Also: "Three conditions arising in compound fractures justify immediate amputation: (1) injury to the blood vessels so great as to cause the leath of the part; (2) uncontrollable suppuration; (3) wide loss of bone substance."

A few cases briefly reported will illustrate the principles enunciated above:

Case (1). J. H., white, age 25, frightened by a policeman, jumped from a second story window to a dirt side walk below, on March 24, 1902; he was immediately seen by a prominent surgeon, who found a compound-comminuted fracture of the tibia and fibula four inches above the ankle; the surgeon dressed the wound by cleaning and hermetically sealing it, and putting the leg in plaster of paris. This dressing was allowed to remain a week, until he came into my service at St. Vincent's Hospital on April 1st, when the plaster was removed, and the wound found to be filled with pus and suppurating freely; interrupted splints of plaster of paris and iron hoops were put on so that the wound could be dressed easily, which was done every day; but in spite of all that could be done, the sepsis extended up the limb, temperature ran very high, and amputation just below the knee a month later was found necessary to save life. There was profuse suppuration in the stump, and a large pocket of pus had to be opened above the joint later, after which he made a slow and tedious recovery.

Case (2). L. E. R., white, age 23, a brakeman on the Frisco R. R., on May 31, 1902, fell on a pile of crossties from a flat car moving very rapidly, sustaining a compound-comminuted fracture of both the tibia and fibula at the junction of the middle and lower thirds, and a simple fracture of the femur of the same side in the middle third; he was taken to St. Vincent's Hospital where the leg was dressed as above described in plaster of paris, with fenestra cut over wounds which were thoroughly drained with both gauze and perforated rubber tubes, and the whole limb placed in a Hodgen's splint. The wound after the third day was daily irrigated with a 1-3000 sublimate solution, and the initial gauze removed on the tenth day. This patient's temperature did not go above 100° F., and he made a good recovery, but on account of his interfering with the tractions of the cords at night, the femur united in a crooked position. On Aug. 4th, 1902, while moving from one chair to another he fell breaking the femur in the same place. It was again placed in the same splint and a perfect result obtained. He was dismissed on Sept. 16th, 1902.

Case(3). D. D., colored, age 22, fireman on the Frisco R. R., on Dec. 28th, 1902, in a wreck, got his leg pinched between the tendor and the engine; he was taken to St. Vincent's Hospital where I found the skin, though badly bruised, was not broken, and there was no crepitus, but a boggy feeling of the soft tissues; soon this bogginess gave way to suppuration, and on incision, a fracture of the tibia was detected. There was no displacement of the bone; the wound was drained with through and through gauze and tubes, and the leg put in a fracture box. Temperature ran very high for a week or two, but

finally, by daily irrigations, suppuration gave way and he made a nice recovery.

Case (4). J. L., white, farmer, age 48, on May 19th, 1903 was thrown from a vehicle and sustained a compound-comminuted fracture of the right femur in the middle third. He was immediately taken to St. Vincent's Hospital where I removed all small fragments of bone, packed the wound with sterile gauze and put in two rubber drainage tubes, and swung the leg in a Hodgen's splint. During the first night quite a good deal of secondary hemorrhage occurred, and for a few days the patient's temperature ran to 102° and 103° F., but by antiseptic irrigation and dressing, this temperature gave way. Later this patient passed from my service, but I am reliably informed he has made a good recovery.

Case (5). J. M., white, age 26, helper at an iron furnace, on May 29th, 1903, fell a distance of sixty feet on another man. He was immediately taken to St. Vincent's Hospital where I found two hours later that he had a large scalp wound, a compound fracture of the inferior maxilla at the chin, a compound fracture of the left femur in the middle third, fracture of the patella and a pott's fracture, all on the left side, besides various small contusions and bruises. The jaw bone was wired, the left lower limb put up in a Hodgen's splint, with the wound dressed as above described, and other small wounds dressed. Notwithstanding his multiple injuries, he did well from the first, and early in July was able to be taken to his home in Chattanooga, Tenn., after which I lost track of him.

STUDIES IN INFANT FEEDING.*

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On several occasions I have been requested by physicians in this district to give them my personal experience with the different methods of infant feeding, and to describe for them the method which has given the best results in my service. I shall endeavor to do this in the paper before you, at the same time, I shall give the experiments and investigations upon which the method has been developed. As we have not had the privilege of having our food prepared in laboratories for infant feeding as many of our confreres in the larger cities, our method has been developed with the view of home feeding altogether.

Our experiences, both clinical and experimental, with all kinds of

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food are of accord that cow's millk is the best substitute for mother's milk in those cases where, from whatever causes, mother's milk cannot be obtained. Therefore, in the methods employed by us, cow's milk is taken as the base which is modified to suit the requirement of each individual infant.

The proper feeding of an infant with modified cow's milk requires three things—viz., good milk, correct modification of percentages, and intelligent or proper care of the milk after it has been modified. As these procedures are for home methods, the subject will be observed under three headings—(1) Home testing of milk, (2) Home modification of milk, (3) Home care of milk.

HOME TESTING OF MILK.

Before we proceed to modify milk it should be our purpose to assure ourselves that we have a milk suitable for modification, which means milk that has not been too long procured, that has been obtained from a healthy cow, that has been handled in a cleanly manner. To determine the kind of cow or herd of cows from which milk is gotten for our infant is our duty at all times, because the investigations of Dr. A. Jacobi have, we think, connected without doubt bovine tuberculosis with tuberculosis of the retro-peritoneal lymph glands in infants. After we have investigated this we then wish to know whether the individual milk which we are to modify has any qualities deleterious to the infant as the result of age, too high temperature of vessel, or unhygienic conditions. Fortunately, we have a very simple and ready way by which we may determine this. It is based on the facts that milk shows amphoteric reactions, containing both alkaline and acid phosphates; that with a solution of phenolphthalein, it behaves as an acid; that the acidity of milk dependent on the acid phosphates is stationary and any increase in its acidity is due to acid forming bacteria or bacteria lactis; that the increase in acidity is in direct ratio to the increasing number of organisms, which depends upon the conditions under which the milk is obtained, the time since milking, and the temperature at which it has been standing. Plauth has shown that there is a period immediately after milking in which there is no increase in acidity and termed by him the "period of incubation." The duration of this period is from five to eighteen hours, depending on the conditions just enumerated, and it is in this period that we find our milk suitable for modification; more than this it is in the first two-thirds of this period that ye get the best milk, because during this time there is only a small increase in the total number of micro-organisms present. Plauth has also shown that it is not the total acidity at the first testing that indicates whether

or not the milk contains deleterious matters, because this may be due to large amount of acid phosphates, but the increase in total acidity in a given period of time.

The test for this acidity is a modification of Soxhlet's test and is made as follows: Into a test tube put 12 1-2 c. c. of milk, to which is added about a cubic centimeter of a 2 per cent. alcoholic solution of Phenol-phthalein; the color of the milk is unchanged, since an acid solution gives no color change with a solution of Phenol-phthalein; next, prepare a saturated aqueous solution of Barium Hydrate; let fall from this solution, drop by drop, into the milk in the test tube until the acidity of the milk is neutralized by the solution of Barium Hydrate, which is determined by the first faint pink color permanently imparted to the entire solution of milk. As each drop of the solution of Barium falls into the milk, a deep red color appears at the point of contact, which quickly fades away on agitation, leaving no trace of its existence until the acidity of the milk is neutralized; when it then imparts to the milk a faint pinkish color which indicates that the solution is neutralized. We estimate the total acidity in this manner—each cubic centimeter of the saturated solution of Barium Hydrate has an equivalence in alkalinity equal to six grammes of magnesium sulphate; we find with these data the number of grammes of mg so_4 required to neutralize the acidity of 100 cubic centimeters of milk, which expresses the total acidity. Thus to neutralize the acidity of 12 1-2 c. c. of fresh cow's milk usually requires about forty drops (medicine dropper) of the Barium solution; there are twenty-two drops in a cubic centimeter, according to our measure; then to neutralize the 12 1-2 c. c. of milk would require 40-22 c. c. solution of Ba. (Ho_2.); but each c. c. of Ba. Ho_2. is equivalent in alalinity to 6 grms. $mgso_4$; therefore the formula becomes 100÷-12 1-2-|-40-22-|-6=87, which is the no. of grms. of $mgso_4$ required to neutralize the 100 c. c. of milk.

Now this test is made as soon as the milk is received and the total acidity estimated; after two hours, the test is made again and if we find no increase in the total acidity, we can know that the number of acid forming bacteria is not very great and that the milk is free from the dangers of superacidity caused by the bacterium lactis.

After we have found our milk of good quality, we have, as the next step in our method, its proper modification.

HOME MODIFICATION OF MILK.

For this we have several methods claiming our attention—Jacobi's, Rotch's, Holt's, Chapin's, Banner's, and several others—all of which

have the same purpose in view. Of this number, we think Dr. Banner has given us the simplest, most useful, and the one that approaches perfection nearest. Many of us have not appreciated its simplicity and usefulness, because we have not given it sufficient study. If we can succeed in making this process and formula intelligible to you, we will feel greatly repaid for our effort in preparing this paper, because we think the grasping of this formula almost essential for those who practice Paediatrics.

The process of modification is based on the hypothesis that cream is simply superfatted milk, and that whole cow's milk contains on an average 4 per cent. fat, 4 per cent. proteids, 4 per cent. sugar; that cream contains 4 per cent. proteids, 4 per cent. sugar, according to the analysis of Dr. Rotch of Boston. In making the modification, 12 per cent. six hour cream, 16 per cent. twelve hour cream, or 20 per cent. centrifugal cream may be used.

In obtaining the formulae, we use cream, whole milk, water, and sugar; therefore the entire quantity desired is equal to the sum of the cream, milk, and water, expressed in terms of liquid measure (the sugar being soluble, does not take part in the measure of the quantity.) In developing the formulae, we shall use symbols—q, the symbol of the desired quantity of milk to be prepared; c, for the necessary amount of cream to be used; m, for the necessary amount of milk to be used; and w, for the water or other diluent necessary; f will represent the desired percentage of fat, and p, the desired percentage of proteids. We then have q equals c plus m plus w; the entire amount of fat in the desired quanity equals f divided by 100 times q, which is the sum of the fat in the cream, (16 per cent. gravity cream), 16 divided by 100, times, c, plus, the fat in the milk, 4 divided by 100, times, m; this in the form of an equation becomes 16 times c divided by 100, plus, 4 times m divided by 100, equals, f times q divided by 100; or s mplified, 16 times c, plus, 4 times m, equals, f times q. Again the entire amount of proteids in the desired quantity is represented by p divided by 100, times, q, which is equal to the proteids in the cream, 4 div ded by 100, times, c, plus, the proteids in the milk, 4 divided by 100, times, m, which gives the equation 4 times c divided by 100, plus, 4 times m divided by 100, equals, p times q divided by 100; or, simplified, 4 times c, plus, 4 times m, equals, p times q. Now combine this equation with the equation above, subtracting; c times 16, plus, 4 times m, minus, 4 times c, minus, 4 times m, equals, f times q, minus, p times q; or, simplifying, 12 times c, equals, f times q, minus, p times q, equals, q, times f, minus p;

which gives the known value for c, equals, q, times, f minus p, and this result divided by 12. In formula number two, we have 4 times c, plus, 4 times m, equals, p times q, or as a value for m, equals, p times q divided by 4, minus, c; as the value of c has been determined above, we readily find a known value for m. The amount of water or other diluent to be added is w equals q minus c minus m. To obtain the amount of sugar to be added we proceed as before—the amount to be added (a) is equal to the total amount in the desired quantity less the sum of the amounts contained in the cream and milk which have been used; this is represented by the equation a equals s (desired percentage of sugar) divided by 100, times, q, minus, 4 divided by 100, times, m, minus, 4 divided by 100, times, c; simplifying, 100 times a, equals, s times q, minus, 4 times m plus c, or a equals s times q, minus, 4 times m plus c, and this result divided by 100; or, as the amount of sugar to be added is in direct proportion to the dilution and as the dilution increases as the proteids decrease, we have as a correct working formula, a, equals, s minus p, times, q divided by 100. As an illustration of the simplicity of this method, we will use an example: Say, we desire 20 ounces of modified milk to contain 4 per cent. fat, 2 per cent. proteids, 6 per cent. sugar; we have, to make this whole milk, gravity cream (16 per cent.) water and sugar (cane or milk.) Using the above formula, c, equals, f minus p, times, q divided by 12; substituting for f, p, and q, we have c, equals, 4 minus 2, times, 20 divided by 12, equals, 40 divided 12, equals, three and one-third ounces, which is the amount of cream that must be used; again, m equals p times q divided by 4, minus, c, or, 2 times 20 divided by 4, minus, three and one-third, equals, six and two-thirds ounces, the required amount of milk; then, w equals q, minus, c, minus, m; equals, 10 ounces of water, necessary; and, a, equals, s minus p, times, q divided by 100, or 6 minus 2, times, 20 divided by 100, equals, four-fifths ounce of sugar, required. The modified milk then must be made by mixing together three and one-third ounces of cream, six and two-thirds ounces of milk, ten ounces of water, and four-fifths ounce of sugar.

With 12 per cent. cream it is evident that the fat can have no greater proportion to the proteids than 3 to 1; with 16 per cent. cream, 4 to 1; with 20 per cent. cream, 5 to 1. With 12 per cent. cream or 20 per cent. cream, it is only necessary to change the denominator of c to 8 and 16, respectively.

As diluents, we have used sterile water, lime water, whey, barley gruel, etc. Dr. Chapin has shown that barley gruel added to cow's

milk assists in separating the curds by the small particles of cellulose which it contains; but Dr. Rotch claims that the good result is only apparent and that lime water is the better diluent. Dr. Rotch also has shown that if we wish a perfect modification of cow's milk, we must use whey as a diluent, because the ratio between the casein and caseinogen in cow's milk is much too high in favor of the casein. This we have often employed, but could not be sure that it was better than lime water except on theoretical grounds.

With this method of modification, we can meet every requirement possible to be met by artificial infant feeding; and if I have succeeded in making it clear to you, we have some apology to offer for having been tedious.

The last proposition of our paper is the care of the milk after modification; this we will consider under the heading—

HOME CARE OF MILK.

It has been our custom to prepare or modify a sufficient quantity of milk to feed the infant during the next 24 hours. After this has been done, we have two ways of preserving this milk—we may use either a cold storage room or a process of heating the milk to that degree of temperature which will produce no physical or chemical changes in the milk, but will be sufficient to destroy practically all micro-organisms which would probably develop in the milk in great numbers within the following 24 hours. Of the two methods, we give preference to the cold storage as the more satisfactory. This has been demonstrated by the investigation of Claus, who showed that milk kept a little above 0° c. would be preserved with no appreciable change for 24 hours, if the milk was fairly good when placed in the refrigerator; Blackadder has also shown that cow's milk carefully collected, aerated, not agitated, and then kept at 10° c. would contain but few bacteria; and Plauth has proven that the incubation period in milk kept at 20° c. is 4 or 5 hours earlier than when kept at 10° c.

In regard to the expediency and practicability of heating milk for infant feeding, the following observations and studies have been made: Claus demonstrated that milk heated to 100° c. loses co_2 and some of its acidity, its calcium acid phosphate is precipitated or made insoluble; Dr. Griffith says that milk in this condition causes scurvy when fed to young animals. Plauth has shown that in milk heated to 100° c. the potato bacillus will grow, causing an alkaline toxic putrefaction, which milk, when fed to young animale, proves rapidly fatal. Fraenkel says that in milk heated to 100° c., albumen is coagulated and becomes difficult of digestion, the fat loses its powers of emulsion, soluble salts are changed, lecithin is destroyed,

nuclein is divided, and the sugar is changed into caramel. C. Vaughn has shown that a temperature of 180° c. will not destroy toxines and one of 100° c. for a considerable period will not destroy spores. Dr. Cotton says that in milk obtained under good conditions, sterilization is useless. Dr. H. D. Chapin says that alkaline the composition may take place in milk heated to 100° c. or even in milk heated to 90° c. Dr. Henry Koplik claims that heating milk to 75° c. is unnecessary and may cause alkaline diarrhoea. Blackadder says that we cannot destroy spores and toxines without destroying the quality.

Prof. Conn claims to have grown two hundred different species of bacteria from milk—some producing changes deleterious to the milk only, while others produced pathogenic or putrefactive changes. The greater number of these forms were the acid producing series, which are very readily destroyed by heating at a temperature 60 to 70° c. for twenty minutes; those varieties that are putrefactive, and spore forming were not destroyed by this temperature, nor were they destroyed when raised to 100° c. Dr. Russell says that milk heated to 70° c. contains so few living bacteria that it may be called sterile; that cream is more resistant and is not so readily sterilized; he draws the conclusion that milk heated to 70° c. for fifteen minutes has 99.8 per cent. of the bacteria destroyed, while in cream, there is destroyed 99.7 per cent. of the bacteria present; on account of spore formation, the older the milk, the less likely is it to be freed from bacteria by heating to this temperature; that in pasteurization at 70° c. it is as necessary to have fresh milk as it is in the cold storage process. Freeman says that plates made from milk heated to 70° c. show no growths in twenty-four hours. Russel, in making a physical and chemical examination of the milk heated to 70° c. found that it suffered a change in taste and probably had undergone chemiral changes; he also discovered that when he had raised the temperature to only 60° c. that he had destroyed 98 or 99 per cent. of the bacteria—all forms as cholera vibriones, bacillus typhosus. Loeflers bacillus and nearly all of the lactic acid species were destroyed by this temperature. There remained some doubt as to the tubercle bacillus, because Dr. Man found that it required one hour at 60° c. to destroy the tubercle bacillus; but Dr. Man also found that it required only fifteen minutes at 68° c. This was for a long time considered as the lowest temperature expedient for the destruction of this bacillus. Russel carried his investigations further and found that in an open test tube a pellicle formed on the milk which protected and preserved the bacillus, and an exposure of even an hour at 60° c. did not destroy them, but by stirring or in a closed tube, they entirely disappeared in ten minutes.

Breslau found that in milk heated to 70° c. there were destroyed certain acid principles which prevented the growth of organisms of alkaline decomposition; that in milk heated to this temperature and kept for twenty-four hours, there was found the potato bacillus, which caused peptonization of the milk; this was found pathogenic for young animals. When the milk was heated again to 100° c. and filtered this toxicity was removed, which proved that the poisonous property was in the bodies of the bacilli.

Milk raised to 70° c., on a warm day, has a stationary acidity from ten to twenty-four hours; the acidity then slowly rises and in 36 hours it has coagulated. Plauth himself has shown this; he has also shown that boiled milk, although at first showing a lesser acidity, may in several hours increase in acidity more rapidly than the unboiled; he has again demonstrated that filtration will not affect the bacterium lactis. Flugge says that milk heated to 70° c. at a country dairy must, on reaching city, be regarded as unpasteurized; he also found that when milk was heated to 90° c. the acidity would remain stationary for 36 hours; when heated to 99 °c, it would remain stationary for several months. Flugge also says that this lack of acidity that we find in pasteurized or partly sterilized milk is no indication as to the real condition of the milk, as in such milk, alkaline decomposition from the potato bacillus takes place and the milk is partly peptonized. This peptonization is evidenced by a line of clear fluid beneath the cream; he also found that milk at 90° to 92° c. gave no evidence of this peptonization in the time of five days.

Wroblewski demonstrated that milk heated about 60° c. had the chemical composition of its mineral salts changed; that it coagulated very slowly with rennet, which was probably due to absence of acid calcium phosphate; that with the addition of the soluble calcium the milk coagulated very readily; that milk when heated above 60° c. had its ferment bodies destroyed; that sterile milk had in solution sufficient trypsin to digest it.

Vaudin says that citrate of calcium is present in milk and holds the phosphate of calcium in solution; that this citrate of calcium is less soluble in warm than in cold water and when heated above 60° c. is almost insoluble.

Theobald Smith found that at 60° c. bacilli of bovine tuberculosis were readily destroyed. From these limited experiments and observations, we can learn much in regard to the temperature to which milk should be raised in order to get the best sterilization and, at the same time, preserve those physical and chemical natures of milk; which characters of milk are fully as necessary for the welfare of the infant as is the freedom from bacteria.

Upon the principles contained in these investigations, we have formulated our present method of artificial infant feeding, which meets nearly every requirement of the infant.

It is our routine practice to instruct our mothers in the rules of home testing of milk, which she can readily grasp with a little practice. The solution of Barium Hydrate will keep indefinitely when covered with a little petroleum; otherwise the carbonate of Barium is formed by contact with air. If the milk is found within safe limits of acidity, it is modified by formulas given to her which are suitable to the age and condition of the infant. Where circumstances are favorable, the milk, after having been bottled, is at once placed in the cooler; if ice cannot be procured, the bottles are subjected to a heat of 60° c. for fifteen minutes. At the end of two hours, the milk in the refrigerator is again tested for any possible increase in acidity, and if no increase is found, the milk is considered wholesome for the 24 hours. The milk which has been heated to 60° c. is tested at the end of six hours as to its acidity; if found stationary, the milk is again heated to 60° c. for fifteen minutes, and regarded wholesome for the 24 hours.

These methods, if properly and conscientiously carried out, will of necessity incur some painstaking detail, but the results gotten by their use will amply reward the time required.

SOME FREQUENTLY UNRECOGNIZED SYMPTOMS OF EYE STRAIN.*

By S. Kirkpatrick, M.D.,

SELMA, ALA,

I believe that it is pretty well understood by the astute diagnostician that errors of refraction or motor disturbances of the eye, are responsible for nearly all of the headaches, and especially sick-headaches, of the world; but that many grave functional neuroses are caused by either latent or manifest occular malfunction, is not sufficiently realized. Many cases come under the observation of the oculist of patients who have received treatment at the hands of good physicians for certain nervous conditions without obtaining relief, because of a lack of any special symptoms pointing to the real cause of their troubles, the eyes were never suspected. One of the reasons of this is, that most any organ may suffer instead of the eye. It is of such value to organism and life that nature is forced to protect it by shunting these results elsewhere, and obviates ocular injury at the ex-

*Read before the union meeting of County Medical Societies at Selma, Ala., November, 1903.

pense of other organs. "The reflex vicarious suffering takes the line of least resistance and exhausts itself upon innocent cerebral, muscular, or nutritional organs." (Gould) There may be, and frequently is, more or less localizing causes, producing symptoms sometimes in the brain, the peripheral nerves, the stomach, or some other organ; but the connecting link in the pathological chain is the eye strain which must be relieved before these conditions can be cured.

A great many organic diseases find foothold through the vague but awfully real fact called denutrition; of all the modern causes of lower vitality there is none equal to that of eye strain. It is rare, indeed, that we find a tubercular patient with a perfect ocular mechanism.

The histories of the following cases taken at random from my case-book will give you some idea of the far-reaching effects of eye strain, and the probability of their being overlooked by the diagnostician who does not constantly bear in mind the relation and interdependence of organs.

Case 1. Miss P., age 21, school teacher, white. In the spring of 1900 applied for relief from the following eye trouble and attendant symptoms, which cause her some alarm. Besides constant headaches, to read five minutes would nauseate her, and if she persisted in reading, it would result in vomiting, and the only relief for her sick stomach was to go to bed in a dark room. For several years she was treated for dyspepsia, the supposed cause of her trouble. To correct her compound hyperopic astigmatism she was given glasses for constant wear, and her exophoria of ten degrees corrected by graduated tenotomies on the xternal recti. Patient writes from a neighboring state, where she is teaching school, that she can use her eyes as much as she wants to, and that to her surprise has no indigestion or other evidence of gastric irritation.

Case 2. Mr. S., age 25, white, merchant, of a neurotic family. Came under observation one year ago, with the following personal history; headaches all of his life, occasional attacks of vertigo, marked digestive disturbances in the form of nausea and great nervousness after eating. Cannot stand a crowd, and is frequently compelled to leave church before the end of the service to prevent fainting. Carsickness, and faints from two to three times in a journey of fifty miles. Is very despondent. Patient has high degree of compound hyperopic astigmatism. Was ordered to wear his full correction continually and to instill atropine into the eyes about once every four weeks to break up a frequently recurring spasm of accommodation. This patient has been benefited, but not entirely relieved. As you all

know the removal of the cause does not always restore the organ or function to its normal condition, as in the status epilepticus, etc. The vicious cycle once started continues after the cause which first set it in motion has been abolished.

Case 3. Miss W. L., age 18, white, student. Consulted me for pain and tenderness in the bridge of the nose and a subjective sensation of its being swollen; worse towards evening; a constant desire to draw up the muscles of the face. A mydriatic disclosed anisometropia: refraction R. V.=6-15: 6-5 w-|-1.75 D. S. L. V.=6-30: 6-6 w-|-4.00=10, 50 Cye, ax 105. Glasses correcting this condition relieved the above symptoms. This patient insisted upon nasal treatment and was convinced that it was her eyes only after removing her glasses on different occasions the old trouble invariably returned, to be relieved again by putting on glasses.

Case 4. Mrs. O. M., age 19, white, married one year. Consulted me June 24, 1903, for constant headache and asthenopia. Patient's general health good, but had never menstruated. A mydriatic was used and a hyperopic astigmatism disclosed in each eye. She has worn her correction constantly and reports no more headaches, and that the menstrual function has been regularly established since the first month after putting on glasses. This case serves to show that a distribution of nervous energy to one organ in excess of its normal supply is done so at the expense of other organs.

Case 5. F. A. W., age 31, white. Tampa, Fla. Came under observation September 4, 1903. Was taking a vacation to avoid another attack of nervous breakdown. As editor and publisher, he is compelled to use his eyes a great deal for near work. Is never entirely free from some headache, but at times the pain becomes excruciating, and he is confined to bed in a darkened room from 24 to 36 hours, about once in every two weeks. These paroxysms are preceeded by a dimness of vision, and a numbness and tingling in the thumb and first three fingers of the left hand, left side of face and lips. The tongue feels stiff and articulation difficult. The sensations are not always confined to the left side, they last two or three hours, and end in the unbearable pain in the head lasting from twenty-four to thirty-six hours. Has been a sufferer for years and is constantly haunted by a dread of paralysis. Patient well nourished, is not a neurotic and family history is negative. Been treated for malarial neuralgia, nervous prostration and various other neuroses, but obtained no relief. Because the vision was perfect the eyes were never suspected; under atropine a compound hyperopic astigmatism with oblique axes was disclosed. A correction of his refractive error has entirely relieved him.

Case 6. Mr. W., age 34, white, occupation lawyer. Came to me in July, 1899. Family history shows no tubercular or nervous trouble. This patient did not come to me suspecting his eyes of being the cause of his mental and physical condition, but having been advised by his family physician to give up his lucrative and laborious practice and seek health in a total abandon of all mental work, he rather sought counsel of me as a friend, and, after listening to his detailed symptoms, I suggested that we examine his eyes. To his surprise I found a high degree of anisometropia, with myopic astigmatism, and eight degrees of exophoria. As a school boy he was very studious and suffered frequently from sick-headache. Had an attack of typhoid fever about ten years ago, and his nervous system has been unstable ever since. For years has complained of left sided headache, insomnia, tingling and numbness in left hand and in left side of face and lips; tongue feels dead, and he frequently pinches his lips to convince himself they are not paralysed; lives in constant dread of paralysis, is very melancholic, with suicidal impulse. About twice a month has blind spells (spasm of accommodation) and has to suspend all near work for several days. Calls these attacks "bilious spells," and takes large doses of calomel for them. He was given a full correction of his eye defects for constant wear, and atropine instilled whenever spasm of accommodation showed signs of returning. His muscular imbalance was treated by rythmical exercise of the internal recti. After a few months he was so far relieved as to enable him to resume work, and today he is entirely cured of all his untoward nervous phenomena. The grateful friendship of this man is but one instance of the gratitude of the many thus relieved.

Case 7. Mr. K., age 38, farmer. Whenever he removes lenses which fully corrects a mixed astigmatism of unsymmetrical axes, he immediately developes typical symptoms of hay fever.

It will be seen that among some of the effects of eye strain are neurasthenia, hysteria, dyspepsia, insomnia, melancholia, vertigo, migraine, epilepsy, chorea, car-sickness, with less definite symptoms of anorexia, faintness, nervous irritability, twitching of the facial muscles, weariness, mental confusion, amenorrhoea, dysmenorrhoea, etc. I would ask you to look after the eyes of the non-studious boy, the irritable nervous child, who cannot sit still at his desk, and the eyes of the erratic child.

"A large number of young criminals at the state reformatory at Elmira, N. Y., have such enormous defects of the eyes, that as children and youths they could not possibly study, and could not even do hand work without botching it or without such injury to the ner-

vous system as would make truancy and a life of vagabondage inevitable. Eye strain is a great teacher of crime."

The greatest sociological question of today is that of eye strain among children.

THE DIAGNOSIS AND TREATMENT OF GALL STONES.*

By Mack Rogers, M.D.,

BIRMINGHAM, ALA.

The condition known as cholelithiasis, biliary calculi or gall stones, is one where we have the formation of solid concretions in the gall-bladder, bile ducts, or probably in the liver substance.

This paper will not take up the general history, etiology, pathology, formation, classification, etc., of gall stones, but will deal only with the diagnosis and treatment of them. The condition is either acute or chronic, or we may have an acute attack superadded to a chronic one.

In the acute attack we find the patient suffering from an excruciating pain referred to the region of the gall-bladder; this pain came on suddenly and is paroxysmal in type, and radiates to the epigastric region, the umbilicus, or back to the point of the right shoulder blade. It is stubborn and does not yield readily to moist heat or internal medication. It may last for a few minutes only, or continue for hours or even days, in spite of opiates.

Pressure over the gall-bladder, during an attack of colic, always elicits local tenderness, and increases the intensity of the local and referred pain.

The pain is intense while the stone is traversing the cystic duct, and suddenly becomes less severe when the concretion has either dropped back into the gall bladder, or entered the common duct. Should this pain continue, and jaundice ensue, the stone is evidently obstructing the common duct; but if the pain is suddenly relieved, it is highly probable the stone has passed into the duodenum. If the stone has entered the bowel, the attack is ended, and the jaundice soon clears up. These attacks are known as hepatic or bilious colic. Ferguson, of Chicago, emphasizes the fact that we may have severe bilious colic without gall-stones, and that we may have gall-stones in abundance without bilious colic. He relates cases where the signs and symptoms indicated gall-stones, but the operation revealed viscid, tarry bile, occluding the neck of the gall bladder, and cystic duct.

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But of course it is just as rational to operate for the relief of such a condition as for that of stones.

Pressure over the gall bladder excites or aggravates pain and produces or aggravates nausea and vomiting, which are always present, and are characteristic of an acute attack. The vomiting usually accompanies the pain, and the character of it is important, for if it contains bile, we know it is escaping from the liver, but we should remember this may occur along the normal ducts, or by a biliary fistula, leading from the gall bladder or bile duct, to the stomach or intestines. During the paroxysms of pain and vomiting there is usually profuse perspiration, or it may come on just after an attack, and is due to the shock from the severe pain, and if often repeated rapidly produces exhaustion.

The pulse rate is usually lowered, reaching as low as fifty, or even forty per minute.

The temperature may, or may not, be elevated; if so, it rarely runs above 103° f., and this only in cases of gangreen or empyaemia of the gall bladder, or some other complication.

These symptoms may last for a short time and pass off entirely, or they may continue for several days, becoming less and less intense, until they cease altogether or terminate in the chronic form. If the attack ends in the chronic form, we infer that the stone has lodged in the cystic duct or migrated down to the dilated portion of the common duct, and lodged there, or that there were many concretions in the gall bladder that are passing in rapid and continuous succession.

When the concretion lodges in the cystic duct, it causes distension of the gall bladder; but when it lodges in the common duct, we do not have distension of the gall bladder, but a stoppage of the flow of the bile and its consequences, one of the most significant being jaundice. We should remember that jaundice is an evidence of a disturbance of the biliary apparatus, and when it is present we should cast about to ascertain its true cause. I am aware that some writers claim we do not have jaundice except where the hepatic or common ducts have been interferred with. I do not share in this belief, however, for I have operated on cases where jaundice was pronounced, and had been for days, and even weeks, and when I examined the ducts, I found them patent, or frequently the cystic duct occluded and the common duct open, and in such cases I have not been content to merely palpate the ducts, but have actually demonstrated that they were open, by forcing water through them into the bowels.

I do not believe we can have much trouble with the biliary apparatus, for more than a day or so at a time, without it manifesting itself in some degree of jaundice.

In all suspicious cases, we should insist on a clean, clear and consecutive clinical history; and from this we will learn, of previous attacks, coming on suddenly, where the patient was seized by violent pain, in the hepatic region, accompanied by vomiting, perspiration, and more or less jaundice. There has been gastro-intestinal disturbances, such as indigestion, constipation, and for a few days after an attack the stools were colored, or did not contain bile, and if the patient is an observant one, he may have detected gall-stones in the feces, which of course is pathognomanic.

If we palpate over the gall bladder, we are able to feel the base of this distended viscus, jutting down below the margin of the liver, at a point corresponding to the lower border of the ninth right costal cartilage, and in some instances we are able to actually feel and hear the gall stones grate against one another. In other cases we can easily make out a mass there, but not the distinct gall bladder. This mass is due to adhesions that have formed during previous inflammatory attacks—and when we have an inflammatory attack we usually find the right rectus tense.

Blood examination is of but little value.

X-ray has been of no service yet.

Age, sex and physical condition play important parts. It is estimated that 25 per cent. of all persons, reaching forty, develop gall-stones in some form. They are most frequent between forty and sixty. Females are three times more often affected than males, and of these, 90 per cent. have borne children.

Gall-stones are usually found in persons of a robust build and habits, and are rarely found in thin, delicate, nervous persons.

In making a differential diagnosis, we should eliminate the following diseases:

1. Nephritic Colic. In this the pain is referred to the back and radiates downward and forward to the groin and testicle, and in this, we have certain characteristic urinary manifestations.

2. Gastralgia. This is characterized by flatulency, relieved by eructation, and is directly associated with the taking of food. Epigastric pressure affords relief rather than pain.

3. Gastric Ulcer. This is usually found in young, thin, anaemic women, and the pain is made worse by taking food, and relieved when the stomach is empty, and these patients often vomit blood.

4. Duodenal Ulcer. This rarely occurs independent of burns or

other extensive surface irritations. In them the pain is worse a few hours after meals.

5. Diaphrogmastic hernia. In this there is the history of violence of some kind, and the tumor and tenderness are not located in the gall bladder region.

6. Abdominal Aortic Aneurism. This is chronic; the tumor pulsates and is usually situated more on the left side.

7. Appendicitis is the disease with which gall-stones are most frequently confounded—and when the appendix is directed upward, and lies near the gall bladder, or the gall bladder is greatly distended and reaches down near the appendix, it is often impossible to differentiate the two, before an incision is made.

I wish to repeat and emphasize, the importance of diligence and care, in these suspicious cases, in order that we may be able to arrive at a positive diagnosis.

This is not always easy, and especially so in the first attack that lasts for a short time only, and passes off, without leaving any jaundice. However, a diagnosis can be based on sudden, intense pain, tenderness and rigidity, localized, over the region of the gall bladder, accompanied by nausea, vomiting, perspiration, prostration, and often jaundice, clay colored stools, containing gall-stones, together with a distended gall bladder, or a mass in that region.

These signs and symptoms, grouped together, in a large fleshy person, over forty years old, and especially if a woman, that has borne children, will justify a diagnosis of gall-stones.

When we feel confident we have gall-stones, acute or chronic, that are giving trouble of a serious character, we should not hesitate to recommend surgical intervention. This is especially true since there are no known medicinal remedies that materially affect this condition.

You observe, I say cases that are giving trouble, for I do not believe all cases of gall-stones should be operated on, even though they are accidentally discovered, for we know that many cases are detected after death from other causes, and that the gall-stones never gave any trouble during life. The operation should be determined upon by close observation of the patient.

When the paroxysms come in rapid succession, and with more and more severity, producing loss of flesh and strength, and accompanied by jaundice, deepening after each attack, we should urge intervention. These are determining signs and symptoms, that we should not allow to develop too prominently before we intercede, because in this, as in other prostrating conditions, the operation should be done before exhaustion occurs.

When we have determined the case as an operable one, we should not permit any longer delay: the facts should be stated frankly to the patient, or his friends, and in most instances they are ameanable.

The operation for the removal of stones from the gall bladder, where there are no adhesions, is a comparatively easy one, but when the stone is located in the common duct, or extensive adhesions exist, or both, we have a very difficult condition to deal with. In the hands of competent, experienced men, I regard this as one of the safest operations in the abdominal cavity. The mortality, in all cases, averaging only about three per cent.

The patient is prepared in the usual way for abdominal sections, and placed on the operating table, in the reversed Trendelenberg position. This allows the abdominal viscera to gravitate down out of the way, and the liver and gall bladder to come down below the costal arch, and admits of easy access to the latter.

The incision should begin at the lower border of the ninth costal cartilage, on the right side, and extend vertically, down, along the outer border of the right rectus muscle, for about three inches. If this does not afford enough room, another one should be made at right angles to this, from its upper extremity, two inches toward the median line. This last incision should include the skin and sheath, only, of the rectus, but not its fibres, for they and the peritoneum can be retracted out of the way; when the fascia and peritoneum are divided, if there are no adhesions, the gall bladder can readily be seen and palpated, particularly if it is much distended. If adhesions are present, it can generally be exposed, by gently separating them with the end of the finger, under the eye.

A large, long silk ligature is passes, one on each side the fundus of the gall bladder; these act as guy-lines, to hold it up in the abdominal wound. We then palpate the under surface of the bladder and continue down along the cystic duct, to the hepatic and common ducts, exploring for stones lodged there. If none are found, we pack sterile gauze around the bladder while it is held up in the abdominal wound by the guy-lines.

Mayo of Rochester, says, when it cannot be brought out this way, he separates it from the under surface of the liver until he can deliver it. I have never tried this. If the gall bladder is at all distended, we should aspirate it before we make the incision.

The incision should now be made, between the guy-lines, and while the margins of the cyst wound are held in aposition with the parietal peritoneum, we stitch it there, by a few silk sutures, passed through the cyst walls, and coming out through the abdominal muscles, but

not the skin. These are carried around the upper margin and sides, of the opening, but not around its lower margin. We leave this until we close the abdominal wound.

Now, while the assistant makes traction, on the guy-lines, to relieve the sutures, that have just been put in, we proceed to remove the stones. This is done best by means of a scoop, shaped something like a large dull curett, bent at an obtuse angle near the bowl. This will be serviceable to remove the small and medium sized stones, but the fingers and forceps must be used in removing the large ones. Or the stone may be so large as to require the complete opening of the gall bladder wall and in such case, it is sometimes best to do Cholecystectomy, or complete removal of the gall bladder. This is desirable where a very great part of the cyst-wall must be divided, because in these cases we do not get good drainage and the function of the bladder has been destroyed. However, I do not think rotine Cholecystectomy good surgery. When we feel certain we have removed the last concretion we should use an aspirator with a soft rubber tube attached, and force water down into the neck of the gall bladder, and if the ducts are open, on through them, into the duodenum, or if there are gall sands left in the neck of the bladder they may be sucked out.

Just here I wish to call attention to the saculated condition of the last gall bladder I operated on. If we remember the mucus membrane of the gall bladder is arranged in folds, or rougae which normally causes depressions or sulci between them, but in this case these depressions were exaggerated and amounted to pockets or sacks, and as there were nearly a hundred stones in it, I was a long time chasing them from one pocket to another before I could feel satisfied I had the last one. This was the most decidedly saculated condition I have ever met, and so far as I know, the only one reported.

When we are sure the bladder is clear and the ducts open, we insert a large drainage tube down into the gall bladder, but not into its neck, because the tube will produce paroxysms similar to those before the operation, if it is crowded down into the narrow part of the neck.

The tube is held in position by passing a large silk suture through it and the skin, allowing the tube to project one-half or one inch beyond the skin.

The gauze around the gall bladder is now removed and a small narrow strip of fresh gauze is placed just under the gall bladder and allowed to come out through the skin. This is to catch any leakage that might occur.

The peritoneum is now closed tight around the gall bladder and strip of gauze drain by a fine continuous catgut suture.

The muscular layer is now closed by large interrupted catgut sutures and finally the skin is closed up snug around the gauze drain by silkworm gut sutures. The last suture next to the drain is put in place, but not tied. We now apply a large gauze and cotton dressing and retain it in place by adhesive straps and a manytailed binder.

The amount of drainage from these cases is astonishing, so we usually arrange a large heavy layer of cotton, external to the adhesive straps that may be changed without disturbing the inside dressing.

At the end of the second or third day we change the dressings, remove the gauze drain and bring them around together by this stitch that has been previously put in place. This brings the abdominal wound snug up around the drainage tube and we have perfect drainage from the gall bladder.

This drainage tube should be permitted to remain till the gall bladder is healthy and the bile is sterile.

The hilvary fistula sometimes closes promptly after the removal of the drainage tube—say in a week or ten days—while in other cases they remain open weeks and even months and ultimately we are forced to close them.

PRESIDENT'S ADDRESS

TO THE SOUTHERN MEDICAL COLLEGE ASSOCIATION IN ATLANTA, GA., DEC. 14, 1903.

Gentlemen: So many changes have been made in the Medical Laws of the States that I have thought it well to review these laws in order that we may know what may be required of our graduates when they leave us to go to distant parts, and thereby prevent disappointments in those desiring to settle away from home for the practice of their profession, as well as to be some guide to us as to how it would be best to increase our standard of preliminary education, and thus run no risk of falling behind in the education of practitioners of medicine. We ought, I am sure, to be even with, and not found lacking in any such advance. With this object in view, I have classified roughly the requirements as I have found them in Polk's Medical Register for 1902 as follows:

1. A diploma from a medical college is required by Arizona, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Maine, Louisiana, Maryland, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota,

Utah, Vermont, Virginia, Washington, Wisconsin, Wyoming, (thirty States and District of Columbia.) And all (thirty-one) except Kentucky, Nebraska, New Hampshire, New Jersey, (four) require an examination before a board on medical subjects in addition to degree from medical college.

Five States, Wisconsin, Ohio, Illinois, Indiana, and Pennsylvania, omit this additional examination, when applicant graduates from the medical schools of these respective States. Wyoming omits this additional examination to graduates of medical school in A. M. C. A.

2. The remaining sixteen States, Alabama, Arkansas, Colorado, Kansas, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nevada, North Dakota, Oregon, Rhode Island, Tennessee, Texas, West Virginia, will admit on an examination alone. But Colorado, Kansas, Michigan, Nevada (four), will accept a diploma in lieu of this examination. And Minnesota requires evidence of applicant having attended four courses of twenty-six weeks each, while North Dakota requires evidence of three courses of six months.

3. Louisiana, Maine, Nebraska, New Hampshire, New Jersey, New York, Pennsylvania, Wisconsin (eight), require preliminary education and lay stress on this point. A good degree, a teacher's certificate, a diploma from a good high school generally accepted.

4. A medical college of good standing is defined thus: By California, Colorado, Wyoming, Ohio, Maryland, Indiana, (six) as a college which follows rules of A. M. C. A. Delaware, District of Columbia, Iowa, Kansas, Maine, Minnesota, Montana, Nebraska, New Hampshire, New York, Pennsylvania, North Dakota, (twelve) mention that an applicant must have had four courses of six months each in different years.

While New York requires that the college be one registered by Board of Regents, and Wyoming requiring four courses of seven months each. In Alabama the colleges are to be recognized as reputable by the Alabama Medical Association.

Now Georgia, New Jersey, North Carolina, Washington, (four) will recognize a college with a three year's course. The other States make no mention of what a good medical college is, except that it be a legally chartered one.

5. Some States may accept the licenses of other States whose requirements are as hard, and which may reciprocate with each other. These are California, District of Columbia, Kansas, Maryland, Ohio, Virginia, Washington, (seven.)

In the last issue of the Standard Medical Register, just from the press (October, 1903), the following note is made of the most recent changes:

"Within the past twenty-five years the laws regulating the practice of medicine have been completely revised. The changes have been particularly rapid in the last few years. At the present time, with the exception of Alaska, there is no State or Territory in the Union which has not in force some restrictive or regulative legislation. Thirty-seven States and Territories now require examinations of all persons desiring to practice. Eleven only, admit to practice upon presentation of a diploma. These are Arkansas, Colorado, Kentucky, Michigan, Nebraska, Nevada, New Mexico, Oklahoma, Rhode Island, South Dakota, and Wyoming. Most of these States and Territories require that the institution from which the candidate is a graduate shall meet certain conditions as to preliminary education, length of course and character of work. In twenty-five States and Territories the physician must present a diploma from a recognized college, and also submit to an examination. In the following States and Territories it is possible for a non-graduate or graduates from unrecognized school to enter, legally, upon the practice of medicine, and in all of these he must take an examination. These are Alabama, Arkansas, Colorado, Massachusetts, Michigan, Mississippi, Missouri, Nevada, New Mexico, and North Dakota. At least two States exempt from examination graduates from schools within their own borders; these are Ohio and Indiana. Tennessee formerly had a similar exemption, but this has been removed.

The last year has seen great activity in medical legislation. California, Kansas, Missouri, and Texas, have enacted entirely new laws. Hereafter examinations will be required in all these States. California requires a diploma from an acceptable medical college or its equivalent; Kansas requires a diploma; in Missouri all persons, irrespective of school, who undertake to heal the sick, must be examined; and in Texas they must also submit to examination. Indiana and Wisconsin have modified their laws so as to require examination. These are the principal recent changes though slight modifications have been made in other States. The tendency of medical legislation is toward the requirement, from every candidate, of graduation from a medical college after four years of study and the subsequent passage of an examination before a State Board. Uniformity of medical laws will doubtless be attained by legislation of this kind. Such uniformity and some practical method of reciprocity in the licensing power are the greatest present legislative needs. It is a hopeful sign that some of the newer laws as those of California, Kansas and Texas provide for the recognition of the licenses issued by other State Boards. It is to be hoped that a practical method of putting it into execution may be found."

From these statistics it would appear plain to the earnest student of medical affairs that the States will all, in time, enact laws that will make it obligatory on the schools in the Southern Medical College Association to advance their standard of preliminary education, and we had as well take note of that fact now and prepare to meet it. It can better be met in graduation than suddenly. It will not do to conduct our schools so that they will only educate men who will be enabled to practice in their immediate neighborhood or in a restricted area only. In this connection, I would like to read you extracts from the following correspondence:

"Chicago, June 19, 1903.

"Dr. Christopher Tompkins,

"Secretary Southern Medical College Association, Richmond, Va.

"My Dear Doctor: At the St. Paul meeting of the Association of American Medical Colleges held in 1901, our committee, which at that time had the pleasure of meeting representatives of the Southern Medical College Association, extended an invitation to your Association to unite with us. In looking over our transactions pubblished since that time I do not find any record of any communication from you showing that your Association took any action in the matter. I would greatly appreciate a word from you in regard to this so that it can be placed on record.

"It seems to me that a union of these two Associations is extremely desirable, and the consummation of such a plan would do much to unify and increase the standard of medical education in this country. Our work has a common object and really aims at the same result. I believe that the members of your Association abide by rules and regulations that are identical with ours, and I feel that I voice the sentiment of every member of our Association when I say that I sincerely trust that a union of the two Associations can be effected.

"I await your favor with pleasure, and beg to remain,

"Very sincerely yours,

"(Signed) Fred C. Zapffe."

Copy.

"Richmond, July 16, 1903.

"Dr. Fred C. Zapffe,

"Secretary Association of American Medical Colleges, 1764 Lexington St., Chicago, Ill.

"My Dear Doctor: The delay in answering your communication of June 19th, was due to the fact that I sent a copy of it to the

Secretary of the Southern Medical College Association, Dr. George C. Savage of Nashville, in order to get his opinion before replying. The Doctor has comparatively recently been operated on for appendicitis and I have not yet heard from him, and, for fear of being misunderstood by you as wanting in interest, I answer without waiting longer for his reply. It has always been a fixed idea with me that there should be but one Medical College Association in the United States. Our Association had a large delegation at the St. Paul meeting and most of them were prepared to apply for membership in the American Medical College Association on that occasion, but did not know definitely what changes were in contemplation by that Association in the near future. Our colleges cannot make as rapid advances in the requirements for preliminary education as those belonging to your Association because our country was devastated by the recent war, but we have as high an ideal as yours, and perhaps higher, which we will ultimately attain. To too rapidly advance our preliminary requirements would practically exclude our young men from the study of medicine and compel us to look to the North and West for physicians, a disadvantage which we could not contemplate for a moment. I send you by this mail a copy of my address as President of the Southern Medical College Association at the meeting held in Cincinnati in November, 1902, which will explain, that until the recent resolution passed in New Orleans in May of this year, goes into effect, we will consider our preliminary requirements, practically speaking, higher than yours.

"There is a most cordial feeling existing for your Association among the members of the Southern Medical College Association in which I participate. This is principally due to the kindness of the former Secretary of your Association, Dr. Bayard Holmes of Chicago, which was continued last year by Dr. Hall the then Secretary, and I judge from your letter that the same relations will be maintained by you. So soon as we feel that we can honestly live up to your requirements fixed for 1905, and that there will be no sudden advance made in those requirements, I think the disposition will be to carry out the views expressed in your letter. I thank you for writing to me on the subject. Reciprocating your cordial expressions and hoping to have the pleasure of meeting you in the near future, I remain,

"Very sincerely yours,

"(Signed) Christopher Tompkins."

Copy.

I am of the opinion that even if we did not think it expedient to join this Association for the reasons given, it might be well to advance our preliminary requirements either as a whole or in part and still retain our present organization, thus avoiding being forced too abruptly into regulations now existing or to be made in the near future that we did not feel prepared to meet. Our country is not now as prosperous as is the North and West and we cannot for a moment think of being dependent on these sections for the education of our practitioners—such a course would unfit them in a certain degree, and they would be, so to speak, unacquainted with modifications required by climate, habit and temperament of the people and it would be, besides, a reproach to our country.

Those of you who attended the American Medical Association in New Orleans, La., will remember how the amalgamation of schools and the closure of weak schools was spoken of as a thing that would necessarily come in the next few years. This prediction has already been verified in a number of instances, and will be to a greater extent when the new rules of the American Medical College Association go into effect in and after 1905.

Let us see to it that our schools will live and prosper, and when the so-called "Survival of the fittest" proposition is brought to our doors, we may be prepared to meet the issue.

ADRENALIN IN THE TREATMENT OF THE CARDIAC TOXEMIA OF PNEUMONIA.

The writer, Henry L. Elsner, M. D., of Syracuse, N. Y. (New York Medical Journal, Jan. 2, 1904), directed attention to the appalling mortality of pneumonia due to the resulting cardiac toxemia. The prime factor in this disease is a toxemia with obstruction in the pulmonary circuit, leading to the cardiac asthenia. Marked changes occur in the right half of the heart, with far-reaching degenerative changes in the muscle, heart-clots, and vasomotor paralysis.

Three remedies meet the indications presented by the circulatory changes due to paralysis of the vasomotor centers, the dilated condition of the arteries and the weakened heart. These are strychnine, digitalis and suprarenal extract or Adrenalin, its active principle. Adrenalin acts on the heart and blood vessels favorably; it does not act the vasomotor center. Hence, it may be used to assist strychnine. When the vasomotor center is exhausted and blood pressure study proves the inefficiency of strychnine, Adrenalin may still be administered, and in some cases which seem unpromising, when combined with the method of stimulation about to be suggested, we may carry the patient

beyond the critical period to a safe recovery. Suprarenal extract, or Adrenalin, has seemed to the author to act as a needed food in all infections where there is danger of myocardial degeneration. He reports a case of pneumonia, in a woman, the mother of five children, in whom it had been impossible to raise a continually lowering blood pressure with strychnine. The systolic blood pressure was almost immediately raised by the repeating administration at short intervals of fifteen minims of a one to one thousand solution of Adrenalin hypodermatically, and the patient was saved.

COUGH AND RESTLESSNESS IN PNEUMONIA.

Dr. W. J. Parker, truthfully states in the January Medical World, that "The season for pneumonia is here," and it may be of interest to our readers to know that he has found an excellent remedy for the cough and restlessness which are such distressing symptoms of this dreadful malady in antikamnia and heroin tablets. Each of these tablets contain five grains of antikamnia and one-twelfth grain heroin hydrochloride, and the dosage is one tablet every two or three hours according to the exigencies of the case, or at the discretion of the attending physician. We may also add, that Professor Uriel S. Boone of the College of Physicians and Surgeons, St. Louis, also reports most satisfactory results with this remedy in pneumonia, bronchitis and la grippe, particularly in relieving the accompanying spasmodic coughs and muscular pain.

NEW YORK AND NEW ENGLAND ASSOCIATION OF RAILWAY SURGEONS.

At the thirteenth annual meeting of the New York State Association of Railway Surgeons, held at the Academy of Medicine, New York City, Nov. 12-13, 1903, a vote was taken and unanimously carried to change the name of the Association to New York and New England Association of Railway Surgeons. This change will greatly extend the good work of the Association and the many benefits to the surgeons and railways in this territory should be mutual.

Place of meeting in 1904 is New York City. Officers elected: President, Dr. C. G. J. Finn, Hemstead, L. I.; First Vice-president, Dr. G. P. Conn, Concord, N. H.; Second Vice-president, Dr. J. P. Creveling, Auburn, N. Y.; Secretary, Dr. Geo. Chaffee, 338 47th street, Brooklyn, N. Y.; Treasurer, Dr. J. K. Stockwell, Oswego, N. Y.

Selected Articles.

THE TREATMENT OF NASAL CATARRH.

Mannon (Cincinnati Lancet-Clinic) finds no danger whatever from the use of the nasal douche provided ordinary care is taken and a proper solution is employed. The charge that postnasal douching is prone to excite inflammation of the middle ear he does not find sustained. All leading specialists employ this method of treatment in the posterior as well as the anterior nares with equally results. The doctor has had chronic nasal catarrh of many months duration yield to douching when heroically employed. Listerine to which a small quantity of bicarbonate of soda has been added is his main stand by. If hemorrhage is a controlling feature he uses instead a saturated solution of tannic acid to each ounce of which ten grains of carbolic acid has been added. When the tendency to bleed ceases he returns to the listerine solution. Treated in this way the most pronounced cases yield in three or four weeks and are not prolonged by complications or sequelae.

DIETETIC AND MEDICAL TREATMENT OF NEPHRITIS.

The work of the kidneys is to eliminate certain ingredients from the blood which, if retained, would be injurious, and the health of the kidneys depends a great deal upon the normal condition and the proper work of the liver. There is no doubt but that lithemia and gout are responsible for a large number of cases of nephritis. As rich foods taken in large quantities as well as the use of alcoholic beverages are known to cause nephritic diseases, it is natural that the proper diet is of the utmost importance.

Abstinence from alcohol, tea, coffee and cocoa, as well as sweets and acids rarely fail to produce prompt and beneficial results, especially in the acute stages, but many cases of nephritis, gout and lithemia are not cured by only cutting off detrimental food. Therefore, we have to aid the treatment by the judicious use of drugs, especially of such which will regulate the excretion of the noral amount of urine, which is highly essential in all nephritic disturbances. The value of diuretics in nephritis has been established beyond a doubt, but of just as great importance is the employment of proper cholagogues, and it is hardly necessary to mention the eminent service which hydragogues and saline cathartics will render in acute as well as in chronic cases, especially when dropsy has set in. A saline combining all the qualities of a reliable hydragogue, cholagogue and diuretic, such as Kutnow's Improved Effervescent Powder cannot often enough be mentioned in

the treatment of nephritic diseases, about which the Medical Press and Circular writes: "The valuable therapeutical properties of the European Mineral Springs and of the salts obtained therefrom have long since been fully established. Patients who have cultivated a taste for elegant pharmaceutical preparations will doubtless be glad to avail themselves of Kutnow's Improved Effervescent Powder, a slightly effervescent and distinctly palatable preparation of the salts prepared directly from the mineral waters. Our analysis proved the presence in due portions of those salts which have made the natural waters famous, and we have no doubt that this pleasant form of ingestion will become every popular with those who are unable to take the waters or the salts. This, like parent waters, is serviceable in cases of rheumatism, gout and chronic affections of the kidneys."

Dr. Colin Campbell, Southport, England, L.C.R.P., M.C.R.S., writes in the Medical Press and Circular, London, Eng., Oct. 7, 1903:

Pleurisy. Dr. B. was under my care last winter suffering from pulmonary cavity. He had previously two or three intercurrent attacks of pleurisy, which I again found present on Dec. 7, 1902, accompanied by severe pain over the cavity, and a temperature of 103°. His previous attacks had occurred at his home, where careful poulticing was practicable, but in apartments this was unsatisfactory, and so it occurred to me to try Antiphlogistine.

The material was warmed and "trowelled" on for many inches around the pleuritic centre, then covered with non-absorbent lint and jaconet. The result was remarkable; the pain disappeared within an hour, and the high temperature within two days.

Many advantages over poulticing were noticed by the patient; facility of application, no unendurable heat, rapid relief from pain, its adhesiveness rendered movement possible without tight bandaging or the alternative sudden influx of cold air which follows the separation of a poultice from the skin.

Chilblains to many will appear a trifling matter, but as one whose school days in winter were rendered miserable by them, I can assert that they are most maddening. Last winter my daughter, aet. 11, suffered from them severely. Each time Antiphlogistine was applied, the redness and intolerable itching disappeared in a night. I have tried remedies innumerable with no such result.

"Many a man is today worrying over a case or two of pneumonia, pleurisy or capillary bronchitis, whose troubles would flit away like mist, did he but know enough to put his patient into a jacket of Antiphlogistine."—Medical Summary, Nov., 1902.

Editorial.

JNO. C. LeGRANDE, M. D.,.....Editor and Prop

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The Journal will be mailed on or about the 15th of the Month. Subscribers failing to receive it promptly will please notify us at once.

We cannot promise to furnish back numbers.

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The New Year.

As we enter upon the work of 1904, we find ourselves in a retrospective mood, considering the things of the past, the achievements, the accomplishments and the results which have been made by earnest hard work by the medical profession throughout the country. A sentiment expressed by another strikes us as being appropriate and thrills us with a sentiment of endorsement.

The dawning of 1904 should be met with a bright and brave face.

The new year is a time for resolution, a time when the rusty garments of bad habits are thrown aside and the beautiful raiment of high purpose is donned. It is time, too, for reflection. The past year

had its mistakes and its defeats, and many of them were but the legitimate result of failing to live up to our ideal. For proper living and with rare exceptions for the attainment of material success ideals are of great value. "Hitch your wagon to a star," is the advice of a transcendentalist, but sound advice even if the world is prosaic. Few things come by chance. Luck does not win battles, material or civil.

Carnegie did not amass his great fortune because of being favored at the outset more than his fellows. Rockefeller, whether we admire him matters not, ascended from a clerkship to the possession of more millions than any other because he was true to his purpose. Abraham Lincoln would have died a rail-splitter if he had not cherished an ideal. The list might be multiplied indefinitely. No man has risen above the ordinary who was content with the commonplace, and no man ever will.

The close of the old year is an excellent time for the renewing of pledges to our nobler aspirations, a time of reviving of the determination to live a better and truer life.

The New Year has no significance other than that conferred by sentiment, but even at that it is rich in possibilities. A good resolution, if honestly made, is not without value, even though later, in a moment of weakness, the resolution should be broken. Perhaps this thought was Tennyson's when he wrote:

> I hold it true with him who sings
> To one clear harp in divers tones
> That men may rise on stepping stones
> Of their dead selves to higher things.

New Year is more than the time for retrospection, accounting and resolving. It is an occasion for good wishes. May it be happy in its best sense. May it be successful enough to keep from want and humiliation, and may it be rich in those treasures which cannot be reckoned in money—the jewels of love and purity and holy purpose. May its round be measured by happy homes and happy faces and good deeds. If this wish be consummated, then, indeed, will the year 1904 be a year of felicity.

The Southern Surgical and Gynecological Association.

The Southern Surgical and Gynecological Association met in Atlanta in December. The Association was well attended, many of the leading physicians of the North and South were present. The papers read were of an unusually high class, and most of them elicited con-

siderable discussion. Aside from the scientific work, the address by Dr. Richard Douglass of Nashville, upon the death of Dr. W. E. B. Davis and his life work, at 11 o'clock on Wednesday morning, was listened to by all the members and visiting physicians and a large number of friends. Dr. Douglass dwelt extensively upon the great and successful work which this distinguished physician had accomplished in his short career. He made many beautiful references to Dr. Davis in a personal way, all of which was true and appreciated. Dr. Mack Rodgers, Dr. George S. Brown and Dr. D. F. Talley of this city, read papers which were considered among the very best read before the Society.

The social features were in keeping with the Atlanta physicians. Dr. W. S. Westmoreland, Dr. George H. Noble and Dr. Nicholson and others were untiring in their efforts to make the visiting physicians have a pleasant stay in Atlanta.

OFFICERS FOR THE ENSUING YEAR.

The following officers were elected: President, Dr. Floyd W. McRae, Atlanta, Ga.; Vice-presidents, Drs. Geo. S. Brown, Birmingham, Ala., and J. Shelton Horsley, Richmond, Va.; Treasurer, Dr. Charles M. Rosser, Dallas, Tex.; Secretary, Dr. W. D. Haggard, Nashville, Tenn.

Birmingham, Ala., was selected as the place for holding the next annual meeting; time, Dec. 13-15, 1904.

Dr. John D. S. Davis, Birmingham, was selected as the chairman of the committee of arrangements.

MONUMENT TO DR. DAVIS.

The former action of the Association in appropriating $2,000 to a memorial, consisting of a ward bearing the name of the Association in the City Hospital of Birmingham, was rescinded, and in lieu thereof $2,000 was appropriated to the erection of a monument in Birmingham to the memory of Dr. W. E. B. Davis.

A Prose Ode to the Appendix.

(By Dr. Geo. S. Brown at the annual banquet of the Jefferson County Medical Society, Hotel Hillman.

Mr. Chairman and Gentlemen: Without wishing to cast aspersions on the chairman's sense of the fitness of things in general, I think in this instance he has made a double misfit. A misfit in joining the two words, ode and appendix, and another in naming me to straighten out the tangle. An ode is said to be a lyrical poem expressive of enthusiastic emotion while the appendix, the vestigial remains of a once capable digestive organ, the analog of the rumen or

fourth stomach of the cow, is a most unpoetical, rollicking, dissolute member of alimentary society; a sort of a social carbuncle on the digestive community; a mere tag on the head of the big gut. Why compared to these the antipodes are near enough neighbors to talk to each other over the back fence as it were.

Of course one could get silly and pun and play upon the words as to say what one owed to his appendix or for his appendix, to his doctor on account of his appendix. Or again about how loud he Oh'd about it through the otherwise stilly night, when it was hurting him.

About the only points of similarity or kinship the words suggest to me are that lyrical poetry especially odes, seem to be becoming mere vestiges themselves, vestiges of a bygone poetical potency, as we might say; and again that the appendix itself somewhat assumes the office of a lyrical poem or ode by the enthusiastic emotion it produces in us when we see our patient get will and we get well paid for operating upon him.

But indeed, these resemblances are only puerile fancies based upon the imperfections of the English language, humorous products second only to puns in cheapness and should not be allowed to taint our high calling. Odes are less important these days, they are, at best, but idle fancies; but paliatives for tired hearts and brains to be applied in an idle hour, or for the bilious lover to write to his mistress's eye brow and wail beneath her window; the appendix is a great monstrous fact, playing its part in the weeding out of the race in its great biological progress.

Puns and jokes are unworthy of us, our art is a serious one, gentlemen, and puns and jokes will not do where life and death are concerned. Thousands are in their graves because the newspapers and others including some of us, joked about appendicitis. It makes us slower to call the disease by its right name and the name is such a byword (often by our connivance or consent) that the family physician is often afraid to mention it until the disease has made dangerous progress. Joking about such things brings reproach when we expect it or it wrings the heart of some one who has lost a sister or brother. Forty-nine and a half per cent. of the laity believe the appendix is a catch all gaping for pins, needless, spareribs, breakfast food or what not wherewith to destroy them. Another forty-nine and a half per cent. believe it is a catch penny for the doctors and hawk their mouldy jokes about. On account of this ninety-nine per cent, of the laity we must forswear joking about ourselves; out of pity for and duty to the first class and out of contempt and rebuke to the last. Let us say nothing in reply to, but lay for this last forty-nine per cent;

those noble, big-jowled feeders who haw-haw their primitive humor about in hotels and parlor cars, they of the india rubber bellies who never know they have one except when it threatens to get empty or when they try to look at their feet. Some of them may come our way and then we can try to educate them at a time when they are in mind to think seriously on an important subject like this. No, on all accounts, as long as people die of it it is too serious a matter to joke about. Our profession has a serious work and we cannot hold the dignity of it too high. The higher it is held the better it is, not for the gratification of our pride and egoism, but for the public good. If we must joke let us joke about other fellows, they do more than enough of it about us without our aiding them, and the lawyer and the broker and the drummer offer a fair and fruitful field.

Dr. Louis C. Morris.

One of the delightful events of the month was the birthday dinner given by Dr. Louis C. Morris of this city, Saturday evening, January 23rd, 1904, to a few of his friends at his lovely home on Eighteenth street, adjoining the Morris Infirmary. Dr. Morris, in his easy, frank, free, gentle, make-yourself-at-home-manner, proved himself to be indeed a most entertaining and agreeable host. Among those who were present were Dr. L. G. Woodson, Dr. B. L. Wyman, Dr. J. C. LeGrande, Dr. D. F. Talley, Dr. J. D. S. Davis, Dr. F. A. Lupton, and Dr. W. P. McAdory. Dr. Morris is a native Virginian, which is a sufficient guarantee that the repast was elaborate and the very best that an expert culinary artist could prepare. Besides there was no cause to be thirsty. As to whether this was his 25th, 30th or 40th birthday, no one is able to tell, for he is happy as a boy at 20.

Jefferson County Medical Society.

At the annual meeting of the Jefferson County Medical Society the following officers were elected for the ensuing year: Dr. L. G. Woodson, President; Dr. Hamrick, Vice-president; Dr. A. W. Sims, Secretary; Dr. E. H. Sholl, Censor for five years, re-elected.

PERSISTENT CONVULSIONS.

Herzen's formulae are:

℞ Chloral hydrate, gr. viij.
Camphor, gr. xv.
Tincture of musk, gtt. xx.
Distilled water, ℥iij.
Yelk of one egg.

As an enema.

Or:

℞ Chloral hydrate, gr. v.
Musk, gr. iij.
Camphor, gr. xv.
Yelk of one egg.
Water, ℥iij.

As an enema.—Le Progres Medical.

GENITO-URINARY TONIC.

W. B. Buckley, M. D., National Home, Milwaukee County, Wis., late Assistant Surgeon United States Army, says: "I have tried, with excellent results, your valuable preparation. Satyria, and was much pleased with is results. I am convinced of its worth as a genito-urinary tonic and wish you deserved success."

Battle & Co. Chemists, St. Louis, Mo.

I have the pleasure of telling you of a most remarkable experience I had with the bottle of ecthol you kindly forwarded me last month. When I received the sample of ecthol I had been treating a young man about ten days for what I diagnosed as ulcer of the stomach. For a year before coming to me he had occasionally seen dark colored blood in his alvine discharge, and now and then, he had vomited blood of a lighter hue. There was an indurated spot on the body of the stomach about twice the size of a silver dollar, which had been giving him trouble for some time. Could trace no history of cancer in his family. After putting him on teaspoonful doses of ecthol four times a day, he came to my office and smilingly told me the hard spot was gone. I examined him and found it to be true. During this last week he had been on ecthol alone. The vomiting had also ceased and he had gained in bodily vigor. Gave him a second vial of same, cautioned him as to eating and exercise, and discharged him in fine spirits. I wonder if this case can be matched?

Lytle, Texas, Oct. 14, 1903. John F. Neal, M.D.

Miscellaneous Notes.

There has been a demand for trained nurses in Birmingham the past month, at reasonable prices. Nurses who are qualified could find employment by applying to the physicians of the city.

Convulsions may frequently be cut short, like magic, by teaspoonful doses of Celurina repeated at short intervals. The nausea as an after-effect of chloroform, or other narcosis, may generally be controlled in the same manner.

I have used more or less of the two elegant preparations, Peacock's Bromides and Chionia during the last two or three years, and must say with satisfactory results. B. A. Bobb, M. D.
Mitchell, S. D.

I have used Seng and Cactina Pellets in my practice, and find that they are all that has been claimed for them. Seng is excellent in those forms of indigestion following chronic catarrh of the stomach and bowels. I like the effect of Cactina pellets in weak heart. I have used it for the last seven years.
Crawford, Texas. A. M. Armstrong, M. D.

The value of Antitoxin as a preventative of and curative in diphtheria is we believe too well grounded to need any editorial endorsement nowadays.

All that now calls for argument or discussion is as to the kind of Antitoxin to use.

The name of Louis Pasteur is so intimately associated with therapy and the Pasteur products are so widely and favorably known in all parts of the globe that the readers of the Journal will be glad to learn that these standards serums are now obtainable in this country and that they are offered in the original Parisian packages to the profession of this country by our old friend, Sharp & Dohme.

Is it not true that nine tenths of the cases of illness coming under the care of a physician are characterized by fever and pain? Is it therefore not obvious that much of the success that comes to medical

men is owing to the more or less prompt relief given to these conditions? From this standpoint Febrisol Liquid (Tilden's) should command the special respect of the medical profession as a certain means of making friends, money and reputation. Febrisol liquid accomplishes these results because of its antipyretic, antiphlogistic and analgesic action, which is unattended with depressant effects. And most important to observe, it causes no drug habit, and does not like opium wreck the patient's mind while he is made oblivious of pain. Febrisol Liquid relieves the pain by reducing the inflamation which is the cause thereof. It sets the circulation at rest by calming the nerve centres in the medulla and through its influence upon the vaso-motor nerves, it opens the flood gates of the skin, producing gentle perspiration and thus cools the blood.

Experience amply shows that there is no more safe, efficient, thoroughly reliable remedy in such conditions than Febrisol Liquid (Tilden's).

J. Wm. Henry, M. D., Brooklyn, N. Y., States: "Aside from the ordinary value of Glyco-Thymoline in its use on abnormal mucous membrane, I consider it of extreme value in the treatment of diphtheria. In a recent case of the most severe type, in which every symptom pointed to a discouraging prognosis, I used Glyco-Thymoline by spray and swab with the ordinary constitutional treatment. The temperature soon lowered and the crisis was passed without serious trouble, much to my surprise and gratification.

In tonsillitis it has been my standard treatment for some time. Its action is quick and the effect was very agreeable to the patient."

AFTER-TREATMENT FOR MALARIA.

Regarding after-treatment for malaria, the following is most excellent:

℞ Tr. fer. mur., f℥j.
Strych. sul., gr. j.
Liq. arsen. potass., ℥ij.
Tr. capsici, ℥iij.
Acid. phos. dil., ℥iij.
Glycerin, q. s. ad ℥viij.

M. Sig.: One teaspoonful three times a day in water. Protect teeth with quill or alkaline wash. Label "Shake."

Society Reports.

Jefferson County Medical Society.

At a regular meeting of the Jefferson County Medical Society, held Nov. 9, 1903, the following papers were read and discussed:

Reported by A. W. Simf, M.D., Lecretary.

ESSAY BY DR. JORDAN ON SHOCK.

The essayist read a very able paper on the subject, discussing the causes and theories as the mechanism of production. He discussed the various methods of treatment, and laid stress especially on prophylaxis.

DISCUSSION.

Dr. McAdory, in discussing the mechanism of production of shock, thinks that the effect of the different causes is felt primarily by the vaso-motor centre. He spoke of pain as a cause of shock, acting as it does by first stimulating the vaso-motor centre and later depressing it.

Under treatment, prophylaxis is most important, and more care should be taken to prevent this condition in operative cases. Medicinal treatment is unsatisfactory at best owing to the poor circulation and non-absorption of drugs. One should first ascertain the cause and treat accordingly. Morphia, when due to pain, saline solution intravenously after hemorrhage, warmth to surface and stimulants. Has seen good reports from intravenous administration of solution of adrenalin, but has had no personal experience. He believes that death from prolonged shock is due to trophic changes in the nerve centres. He used 1-15 gr. strychnia every two hours in one case; the large dose being given on account of poor absorption.

Dr. T. L. Robertson did not think such large doses were justifiable as the patient would absorb the same when the circulation was improved.

Dr. Ward spoke of cocaine infiltration of the nerves before severing, stating that this procedure prevented the lowering of blood pressure which always accompanied section of the larger nerves.

Dr. Morris thinks that the temperature of the room in operative cases should receive more attention. After prolonged abdominal operations, salt solution left in the abdomen lessens shock. He spoke of a special apparatus which had been devised for treatment of

shock, it being a rubber sheet which could be filled with hot water and wrapped around the patient.

Dr. Jordan, in closing, emphasized the importance of complete anaesthesia in all operations, and dealt with the relative merits of chloroform and ether from the standpoint of production of shock. He also mentioned the sudden removal of pressure as in tapping cysts, etc.

At the regular meeting of the Jefferson County Medical Society held on Nov. 23, 1903, at the City Hall in Birmingham, Ala., the following papers were read and discussed:

ESSAY BY DR. H. R. COSTON ON PLACENTA PREVIA.

The subject was fully considered in this essay, and brought out liberal discussion. The author reported three cases, and outlined what he considered the best treatment.

DISCUSSION.

Dr. Coulbourn, in opening the discussion, thanked the essayist for the very able paper. He does not think that an endometritis causes the majority of cases, but thinks that a roomy uterus which allows ovum to gravitate toward the cervix and be implanted there explains the majority. He argues that in such cases the uterine walls are not in contact, and the ovum does not meet with the usual resistance.

When called to see a pregnant woman who is bleeding the cause should be ascertained, and if placenta previa is diagnosed, labor should be induced and the child delivered as soon as possible. The life of the child should not influence the physician to postpone interference until it has reached the period of development when it can be saved. He prefers the Barnes bag for dilating the cervix. When the cervix is sufficiently dilated, introduce the hand and grasp a foot, bringing it down, and deliver as rapidly as possible.

Dr. Whaley: The cause of the condition is all theory, but he considers endometritis a very important factor. The roomy uterus plays an unimportant part in the causation. He gave the comparative sizes of the normal uterine cavity and the ovum to demonstrate that the ovum had sufficient space in which to gravitate toward the cervix. The cervix is not always easy to dilate, and on account of the vascularity of the parts forcible dilatation is somewhat dangerous. The gauze tampon is of little value except for its effect on the contractions of the uterus.

Dr. Jenkins believes that the best aid we have is in trusting God to help. He has had six cases, and all would have died without such help. He believes in immediate manual dilatation of the cervix. Introduce a hand, and grasp and bring down a foot. He has saved all of his cases by this method.

Dr. Sholl reported two cases seen in consultation. Both children died.

Dr. M. H. Collins has had two cases with one death.

Dr. George S. Brown believes the tampon acts well, both by stopping the flow of blood and by causing uterine contractions, thus dilating the cervix. He reported a case which was brought to his hospital after having been tamponed for a severe hemorrhage. There was no leakage through the tampon, but the uterus was enormously distended. The pulse was very feeble and the foetal heart sounds absent. Believing that the os was dilating he did not attempt interference until next morning, when the patient was removed to the operating room. The tampon was quickly removed, and the hand introduced through the centre of the placenta and the foot caught, but the child could not be turned. The head was pressed down and delivery was completed as rapidly as possible with forceps. He believes that the tampon saved the woman's life, and that she would have died if immediate delivery had been attempted instead.

Dr. Mason spoke of the good results obtained from Caesarian section where the first hemorrhage has been controlled and proper preparation made before operation.

Dr. Jordan does not believe in any method of palliative treatment. He thinks that procedure looking to emptying the uterus should be instituted at once.

Dr. Duncan thinks that immediate interference should be demanded as soon as the diagnosis is made; and in case it is rejected should then demand removal to hospital with constant attention. If both demands are refused, it is best to withdraw from the case.

Where the os is not dilated he recommends Barnes bag until the hand can be introduced, turn and deliver rapidly.

Dr. T. L. Robertson thinks that all procedures in these cases require skill and judgment. He reports the case of a patient who was nearly exsanguinated when seen by him in consultation. He tamponed the vagina with cotton, which he prefers to gauze in these cases. He removed the tampon later, having previously made all preparations to deliver rapidly; applied forceps to aftercoming head, removed the placenta. He was preparing to leave the patient with the attending physician, and noticed that she was bleeding profusely. The patient died.

Dr. T. A. Casey saw the case reported by Dr. Brown, and is of the opinion that the patient would have died if immediate delivery had been attempted instead of tamponing.

Dr. Morris thinks that there is an increased tendency to post-

partum hemorrhage in cases of placenta previa, and that it would be good practice to pack the uterus immediately after delivery. For this purpose he prefers a sterile roller bandage 2 1-2 inches wide.

Dr. Coston closed the discussion.

DR. LULL ON FRACTURES DUE TO MUSCULAR ACTION.

Dr. Lull reported a case of fracture of the humerus at the junction of the middle and lower thirds. The bone fractured while the patient was in the act of throwing a ball.

The subject was considered in its various aspects, mechanism, predisposing factors, etc.

DISCUSSION.

Dr. Rogers opened the discussion, stating that the essayist had more information on the subject than he was able to gather. He saw a similar case in a strong, healthy man, the fracture being produced in the act of throwing a pebble. He spoke of a class of cases in which a portion of bone is torn from the shaft of a long bone by muscular action.

Dr. Morris spoke of a case of a fracture of the radius at the neck, caused by throwing a ball. The patient recovered and later ruptured the orbicular ligament in the same manner.

Dr. Lull closed the discussion.

REPORT OF CASES.

DR. TORRANCE ON ABSCESS OF FUNDUS OF UTERUS.

Dr. Torrance reported a case operated on by him at Saint Vincent's Hospital, and presented the specimen to the Society.

Dr. Talley has never seen a similar case. From examination of the specimen, the abscess cavity appears to be closely related to the affected tube, but does not connect with it. The patient may have had a metritis with this localized collection of pus. This would be possible with a streptococcic infection, but the history of the case does not point to such infection. He could not find any literature upon the subject.

Dr. George S. Brown saw Dr. Kelley remove a uterus in 1895, which proved to be a suppurative metritis, the uterine walls being honey-combed with small abscesses.

Dr. Jordan treated a case for fibroids and saw the patient at intervals, she refusing operation. Finally he was called and found her suffering intense pain in the abdomen, and the tumor much enlarged extending to the umbilicus. He opened the abdomen and immediately struck pus. He considers the case either a localized abscess or a suppurative fibroid.

Dr. Wilson thinks that from the history of the case, the process

was evidently chronic, and this suggests that it is either tubercular or gonorrhoeal. A suppurating tumor is also probable.

Dr. Rogers had occasion to curette for subinvolution seven months after delivery, and during the operation the curette was pushed through the uterine wall. In washing the uterus out later, he noticed fecal matter in the washings. Opened the abdomen and closed the opening in the gut and uterus. He asked the doctor if she had been curetted, as the instrument may have been passed into the uterine substance and caused a local abscess.

Dr. T. L. Robertson saw a similar case where faeces were passed through the uterus. No operation. Complete recovery.

Dr. Torrance closed the discussion.

At a regular meeting of the Jefferson County Medical Society held Dec. 14, 1903, in the City Hall of Birmingham, Ala., the following proceedings were had:

ESSAYS ON THE RETRODISPLACEMENTS OF THE UTERUS. By Dr. W. L. Nolen of Chattanooga, Tenn., Dr. R. S. Hill of Montgomery, Ala.

Drs. W. L. Nolen of Chattanooga, and R. S. Hill of Montgomery, read essays on the subject.

Both papers were of the highest type. The authors differed somewhat as to the principle factors entering into the causation of the condition, also as to the best method of securing and retaining the organ in the proper position.

DISCUSSION.

Dr. C. Wilson thanked the essayists. He believes that the treatment depends on the conditions present. The Alexander Adams operation is to be preferred where the adnexa are normal except the changes produced by the misplaced uterus, also where they have extensive adhesions, the breaking up of which leaves a large denuded area. In the latter case the abdomen should be opened, break up adhesion, and shorten the ligaments within the cavity. He uses the cautery for dealing with adhesions. Should always do a preliminary curetage and repair any perineal defect. He spoke of a method of making incision, which lessens the danger of subsequent hernia.

Dr. Riggs states that ventro-suspension has proved unsatisfactory in his practice, and he has discontinued the operation. He thinks that the adhesion formed will not hold. In shortening the round ligaments you furnish a natural support, and will get the desired results if the perineum is properly repaired.

In uncomplicated cases, he does the Alexander operation; and when you have adhesions you open the abdomen over the inguinal

canal, breaks up the adhesions on that side, shortens the ligaments and closes. Same on the other side. He does not favor the use of pessaries. Shortening the utero-sacral ligaments is a difficult operation and does little good. He will continue to do the Alexander operation or some modification.

Dr. Purifoy thinks that if the pelvic floor is intact any operation that will hold the uterus in position so that intra-abdominal pressure can act, will cure the displacement.

Dr. E. M. Robinson has seen a relapse in a case of prolapse treated by ventro-suspension.

Dr. Stovall stated that he had recently delivered a patient, labor normal in every respect, upon whom ventro-suspension had been done five months previous to conception. Patient was an invalid before operation, but is now well.

Dr. Nolen, in closing, thanked the Society for the invitation and discussion. He could not agree with Dr. Riggs as to the relative merits of the two operations, and gave the result of personal observation in 106 cases.

Dr. Hill does not think that any one operation will meet the indications in all cases, but for routine work, he prefers the Alexander. He thanked the Society.

At the annual meeting of the Jefferson County Medical Society held on Dec. 28, 1903, at the City Hall of Birmingham, Ala., the following business was transacted:

The annual reports of the Secretary and of the Treasurer were read and received.

The annual message of the President was read and received.

The report of the Board of Censors was read and received.

The Health Officer's report was passed, same to be submitted later.

The following officers were elected:

L. G. Woodson, President, to serve one year.

R. H. Hamrick, Vice-president, to serve one year.

E. H. Sholl, Censor, to serve five years.

MISCELLANEOUS BUSINESS.

On motion by Dr. E. H. Sholl, duly seconded and carried, the matter of appointment of City Health Officer, as required by the health laws recently passed, was referred to the Board of Censors, with instructions to report to the Society at its next meeting on Jan. 11, 1904.

On motion by Dr. George S. Brown, duly seconded and carried, the following committee was appointed to investigate and see if a more suitable hall could be secured:

Committee: George S. Brown, Chairman; Woodson, LeGrande, McAdory, and Mason.

On motion by Dr. B. L. Wyman, duly seconded and carried, Drs. Woodson, Coulbourn, and C. A. Fox were appointed a committee to arrange a subscription banquet.

On motion by Dr. E. H. Shall, duly seconded, the Society unanimously by rising vote, thanked the retiring President, Dr. W. H. Wilder, for the interest and devotion shown in the discharge of his duties as President during the past year.

At a regular meeting of the Jefferson County Medical Society held Jan. 11, 1904, at the City Hall in Birmingham, Ala., the following proceedings were had:

ESSAY: OPERATIONS FOR BRIGHT'S DISEASE.

Dr. George S. Brown made a further report, in which he dealt with statistics as compiled by other operators, notably, Guiteras and Edebohls; and gave conclusions drawn therefrom by himself. He also reported two cases in his own practice.

DISCUSSION.

Dr. McLester called attention to the quantity of urea excreted by one of the patients. On the day of admission, the quantity for twenty-four hours was 8.5 grams, which steadily increased to 13.7 grams on the tenth day after operation. The patient was on restricted diet, and yet the excretion of urea steadily increased, proving conclusively to his mind that the kidneys were doing better work than before operation. Thinks the operation indicated only in acute cases.

Dr. Rogers agrees with the essayist as to the class of cases upon which operation should be performed. In acute cases, when medicine fails to relieve, operation should be performed. He reported the case of a woman who had been treated for two months by another physician, no diagnosis having been made. When he first saw her she was in a semi-prone position, and very stupid. The family had been unable to get her to go to bed on account of discomfort when lying down. Urinalysis showed albumen and sugar in quantities. He operated and found a floating kidney; split the kidney through to the pelvis. The kidney was diminished in size. Closed the kidney incision and wound in back. Left drainage for two or three days. Wound united primarily. The quantity of urine voided increased steadily, with marked improvement in the general condition of the patient until the third week, when there developed muscular rheumatism in the left leg. The patient was sent home much improved; urine clear with no trace of albumin or sugar one week later.

Dr. McAdory considers the subject of much importance. He thinks that Dr. Edebohls has brought the operation into bad repute by advertising to cure chronic Bright's Disease by splitting the capsule of the kidney, stating that the increased blood supply through the adhesions formed increases the secretion of urine. Dr. McAdory does not think this is the cause of the increase, as the blood so furnished does not reach the glomeruli and uriniferous tubules, and certainly no additional glomeruli and tubules are formed. The capsule serves to influence the blood tension in the kidney, and by splitting the same, more blood is allowed to enter the kidney, which fact, he thinks, explains the increase in the quantity of urine excreted.

He thinks that in acute cases and during exacerbation in chronic cases, the operation is indicated and does relieve. The estimation of the quantity of urea is of more importance than the presence of albumin.

Dr. Cocke assisted Dr. Guiteras in several of his operations, and the conclusions drawn coincide with those of the essayist.

Dr. Parke thinks that if surgery keeps the pace it has been going, there will be nothing left for the medical man to treat.

He does not see how splitting the capsules can stop the contraction of the connective tissue in interstitial nephritis.

It looks reasonable to expect some good in the acute glomerular form from the relief of tension. He questions the advisability of using ether as an anaesthetic in these operations, and mentioned the use of diuretin.

Dr. Ward thinks that the case reported by Dr. Rogers is an unusually interesting one, as the patient seemed to have Diabetes Mellitus, and albuminuria, both of which were relieved by the operation.

Dr. Brown, in closing, believes that the relief accompanying the operation depends to a considerable extent on the drainage, which is always profuse. He cannot agree that the relief of tension plays any part, as there is improvement in cases where the kidney is contracted and much smaller than normal.

He does not agree with Drs. Parke and McLester in that the operation does no good in interstitial form, as it is in this class of cases that good results have been obtained, and relapses are less frequent.

REPORT OF CASES.

Dr. Parke reported the case of a man, age 60 years, whom he saw complaining of nausea and diarrhoea. These symptoms passed off in the course of twenty-four hours, followed by catarrhal symptoms of the nose and throat, muscular pains and other symptoms which made the diagnosis unmistakably "Grip." He later developed pain

in the left leg, located at about the apex of Scarpa's triangle, which seemed to be in the muscle (?) In a day or so the pain extended higher up the thigh with enlargement of the lymphatic glands, and later the glands above Poupert's ligament enlarged with pain in that location. Dr. G. S. Brown saw the case with him, and they attributed it to grip. Phlebitis was suggested, but after due consideration was eliminated. What was it?

Dr. Sholl believes that grip can cause anything, so he would be inclined to diagnose as such.

Dr. George S. Brown considered the possibility of phlebitis when he saw the case, recalling to mind the case reported by Dr. Talley last spring, but is inclined to look upon it as a grippal lymphatic infection.

Dr. McAdory made a few remarks on the case of phlebitis reported by Dr. Talley, calling attention to the very slight disturbance of circulation in the beginning.

Dr. Rogers called attention to the fact that in affections of the vein you may find a knotty condition which could be mistaken for enlarged lymphatics.

Dr. Parke, in closing, said he was sure the enlargements were of the lymphatics, although there might be some affection of the vein also. Treatment was supportive with ice applied locally.

Bibb County Medical Society.

The Bibb County Medical Society met at Blocton, Ala., Jan. 5, 1904, some eighteen members being present. There were two good papers presented, one by Dr. Curtis of Blocton on lacerated wounds with reference to treatment which was very freely discussed, the physicians of the county being engaged in mining practice and seeing a great number of these wounds were very much interested in this paper. Dr. Thomas of Lopez, read a very interesting paper on "The Importance of Early Diagnosis in Pregnancy," relating several cases having come under his observation which, if it had not been for the early diagnosis and treatment instituted, would necessarily have resulted fatally. The report of the Secretary and Treasurer, and message of the President were listened to with pleasure by the Society.

The election of officers was as follows: E. M. Prince, re-elected President; W. J. Nickolson, Vice-president; J. S. Moore, Health Officer; T. F. Huey, Treasurer, and Dr. Granberry to fill the vacancy of Dr. J. F. Curtis as a member of the Board of Censors. A resolution was introduced to make an attempt to have the salary of the health officer raised from $25 to $250 per year, as a mark of appre-

ciation from the county for the excellent work done by this officer during the recent epidemic of small-pox in Bibb county, and the physicians as a whole agreed to go to Centerville while the Commissioners Court was in session to make an earnest effort to push this matter through and we feel our efforts will not go unawarded.

The meeting adjourned to repair to the most excellent banquet prepared for the doctors by Jones and Allen, two of the leading druggists of Blocton, and it is needless to say that we were delightfully entertained. The Society will meet again in Centerville on Feb. 9, 1904.

A Member.

Hale County Medical Society.

On Jan. 5th the Hale County Medical Society held its annual meeting for the election of officers. There was a fine attendance. There is more interest being taken in the Society than ever before.

The following officers were elected: President, Dr. J. P. Borden, Greensboro; Vice-president, Dr. R. F. Monette, Greensboro; Secretary and Treasurer, Dr. H. G. Perry, Greensboro; Censor, Dr. R. J. Griffin, Moundville; Health Officer, Dr. J. Huggins, Newberne.

After the reports and general business was concluded, the following program was taken up:

1. Address of Welcome—President R. J. Griffin, M.D., Moundville.
2. Abdominal Hysterectomy—Dr. H. T. Inge, Mobile.
3. Injuries of the Hand—Dr. W. W. Harper, Selma.
4. Typhoid Fever—Dr. O. L. Shivers, Marion.
5. The Causes and Treatment of Abortion—Dr. M. L. Malloy, Steward's.
6. Wetting the Bed—Dr. R. F. Monette, Greensboro.
7. Every Day Preventive Medicine—Dr. S. C. Carson, Greensboro.
8. Treatment of Fractures With Plaster of Paris Splint—Dr. M. B. Cameron, Sumterville, President of the State Medical Association.

We felt honored in having present at the meeting the President of the State Medical Association, and such distinguished visitors as Drs. Inge, Harper and Shivers.

Upon the completion of the program an elegant dinner was served, which was not the least enjoyable part of the occasion. Covers were laid for thirty. The local druggists, dentists and editors together with Drs. Downey and Webb, who are honorary members, and the visitors named above, were our cordially welcomed guests. The occasion will be long remembered in the medical annals of the county.

H. G. Perry, Sec.